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EXAMINER

JACKSON, MONIQUE R

ART UNIT

1773

PAPER NUMBER

16

DATE MAILED: 12/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/083,110

Applicant(s)

JUD ET AL.

Examiner

Monique R Jackson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 30-48 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 30-48 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 09/457,006.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other:

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DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 9/30/03 has been entered. Claims 30-48 are pending in the application.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action. The rejections as recited in the prior office action have been restated below given that the amendment filed 9/30/03 does not overcome the previous rejections as discussed below in the Response to Arguments section.

Claim Rejections - 35 USC § 102

3. Claims 30, 34, and 38 are rejected under 35 U.S.C. 102(b) as being anticipated by Migliorini et al (USPN 5,591,520) as recited previously and restated below.

Migliorini et al teach a high barrier metallized film with excellent bonds strengths comprising a coextruded multilayer film of a layer of polyamide (PA) adjacent and aggressively adhered to a layer of polypropylene (PP), and optionally a heat seal layer, such as ethylene propylene (EP) or ethylene propylene butene (EPB), applied on the polypropylene layer opposite the polyamide layer, and a metal layer such as aluminum applied to the polyamide surface wherein the metallized film may be subsequently extrusion laminated on the metal surface with a low density polyethylene film (LDPE) (*meets the limitation "first functional layer containing a first plastic film that is a polyolefin or extrusion layer of a polyolefin or one or more lacquer*

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layers”), such that the structure of the resulting film is: LDPE/metal/PA/PP/EP or EPB (Abstract; Col. 1, lines 10-64; Col. 2, lines 39-42; Col. 3, line 58-Col. 4, line 14; Example) wherein the Examiner takes the position that the polyamide/polypropylene film taught by Migliorini would inherently meet the instant limitation with regards to delamination during sterilization given that the film is formed by coextrusion as instantly claimed and wherein the aluminum layer taught by Migliorini et al reads on the term “aluminum foil” considering the above claims have not limited the term to a particular aluminum layer thickness.

4. Claims 30, 34, and 38-45 are rejected under 35 U.S.C. 102(b) as being anticipated by Breitler et al (USPN 5,589,275) for the reasons recited in the prior office action and restated below.

Breitler et al teach a composite material suitable for sterilization containers or packages wherein the composite contains a metal layer on both sides of which is a plastic layer wherein the metal layer is a metal foil, preferably aluminum or aluminum alloy with an aluminum purity of most preferably 99.5% or higher, including AA8014, AA8079 or AA8101, having a thickness of 8-120 μ m; wherein the plastic layer(s) is a polyamide-based thermoplastic containing polyamide with a thickness of 20-50 μ m (Abstract; Col. 1, lines 19-20; Col. 3, lines 1-22 and lines 66-67.) Breitler et al teach that the plastic layers on both sides of the metal layer may include composites of two or more films or layers wherein the polyamide-based thermoplastic layers may additionally and independent of each other be provided with an outer lying sealable layer and/or barrier layer of thermoplastics, such as a polypropylene sealable layer, wherein the sealable layers are sealable films deposited via adhesives, applied by lamination or lamination coating wherein the thickness of the sealable films may be 6-100 μ m thick and furthermore, one

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or more layers, e.g. 1 to 10 μ m thick, of a sealing layer coating may be deposited on the plastic composite (Col. 4, lines 1-38.) Breitler et al further teach that a single or double-sided sealable composite may be obtained by single or double-sided coextrusion of the plastic layers, wherein in that connection, it is useful for the plastic layers to contain or comprise a polyamide-based thermoplastic and at least one polyamide layer to feature a sealing layer on at least one side, i.e. **each layer of polyamide thermoplastic may be covered with a sealable layer, such as polypropylene, on one side or both sides, independent of the other layers** (Col. 4, lines 36-45.) Breiter et al teach that to join the aluminum foil or to bond the plastic films or individual layers to each other, an adhesive coating and/or bonding primer are usually employed wherein a suitable adhesive is a maleic-anhydride modified polypropylene, and suitable bonding agents are epoxy or urethanes, wherein the bonding agent or primer may be for example applied in amounts of 0.1-10g/m², usefully 0.8-6g/m² or the adhesive layer has a thickness of 1-12 μ m or applied in an amount of 0.1-14 g/m² (Col. 5, lines 3-47.) Breitler et al further teach that the composite material may also feature a sealing layer such as PET on one or both sides of the composite independent of the other layers, with a thickness of 6-100 μ m (Col. 4, lines 20-35.) Breitler et al teach a number of layer arrangements wherein the plastic films may be formed by warm coating or coextrusion and may be subjected to stretch-drawing, to produce a composite film useful in manufacturing packaging and parts of packaging such as packaging containers, base parts, blister packs, for storing or packaging foodstuffs or pharmaceutical products (Col. 5, line 48-Col. 6, line 23; Col. 6, line 65-Col. 7, line 33.) With regards to the limitation "lacquer", the examiner takes the position that the synthetic coating layers taught by Breitler et al read on the term "lacquer" layer(s). Hence, according to a broad interpretation of Breitler et al, the composite may have the

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following structure: coextruded (PP/PA/PP)/optional primer or adhesive/metal foil/optional primer or adhesive/coextruded (PP/PA/PP) which reads on the above recited claims given that a polypropylene layer which is a polyolefin may be adjacent the metal foil directly or via a primer or adhesive and given that the instant claims do not exclude the incorporation of additional layers.

Claim Rejections - 35 USC § 103

5. Claims 30, 34, and 38-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Migliorini et al (USPN 5,591,520) in view of Breitler et al as recited in the prior office action and restated below.

The teachings of Migliorini et al are discussed above. Though Migliorini et al teach that the composite comprises a metal or aluminum layer formed by metallization, Migliorini et al does not teach that the metal layer is formed by a metal foil or aluminum foil having the instantly claimed properties. However, Migliorini et al do teach that a metallized layer is functional equivalent to a metal foil layer in terms of providing barrier properties in a multilayer composite film wherein the metal layer thickness affects the barrier properties of the film, hence based on the teachings of Migliorini et al, one having ordinary skill in the art at the time of the invention would have been motivated to utilize a metal or aluminum foil layer in the invention taught by Migliorini et al based on the desired barrier properties for a particular end use of the packaging film. Further, one having ordinary skill in the art would have been motivated to utilize any conventional metal foil or aluminum foil layer utilized in the art wherein Breitler et al teach the use of an aluminum foil layer having the instantly claimed properties in a composite barrier packaging film and hence, one skilled in the art would have been motivated to utilize the

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preferred metal foil taught by Breitler et al in the composite barrier film taught by Migliorini et al.

6. Claims 30-38 and 43-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohtsuki et al (USPN 4,407,689.) Ohtsuki et al teach a laminated member comprising a metal foil laminated to a thermoplastic film via a polyolefin-based adhesive wherein the metal foil is made of aluminum with a thickness of about 5 to 1,000um, may be subjected to chemical treatment (primer) on the surface of the metal foil, and may be backed with a heat-resistant film such as a polyamide or polyester film (*also reads on term "lacquer layer"*) since the metal foil is generally low in mechanical strength, wherein a print layer may be formed between the heat-resistant layer and the aluminum foil (Abstract; Col. 2, line 25-Col. 4.) Ohtsuki et al teach that the thermoplastic film may be a single resin film, for example, polyolefin such as polyethylene or polypropylene, polyamide, polyester, polyvinyl chloride, polyvinylidene chloride, polybutadiene, polycarbonate, an ethylene-vinyl acetate, or polyvinyl alcohol or a composite film produced therefrom by coextrusion (Col. 3, lines 20-32.) Ohtsuki et al further teach that the laminated product may be used for the production of a retort sterilization package wherein when it is used as a material for packaging food to be sterilized in a retort, it is preferred to use high density polyethylene or polypropylene as the polyolefin (Col. 5, lines 22-27.) Hence, Ohtsuki et al teach a composite having the following structure: polyester/print layer/primer/aluminum foil/primer/polyolefin adhesive/thermoplastic film wherein the teachings of Ohtsuki et al suggest that the thermoplastic film may be a coextruded film of two different polymers such as polypropylene and polyamide (Col. 3, lines 20-32; Col. 39-42) and therefore one skilled in the art at the time of the invention would have been motivated to utilize a coextruded film of any two

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polymers disclosed by Ohtsuki et al including polypropylene and polyamide. With regards to Claim 32, though Ohtsuki et al teach that the polyester backing film is present to provide improved mechanical strength, Ohtsuki et al does not specifically teach that the polyester film is monoaxially or biaxially oriented or that the polyester is formed from PET or PPT. However, it is well known and conventional in the art to orient a polymer film mono- or bi-axially to improve the mechanical strength of the film hence given that Ohtsuki et al teach that the polyester film is provided because the metal foil lacks mechanical strength, one having ordinary skill in the art at the time of the invention would have been motivated to improve the mechanical strength of the polyester film and resulting resin backed metal foil by orienting the polyester film as well known and conventional in the art. Further, one having ordinary skill in the art at the time of the invention would have been motivated to utilize any polyester film conventionally utilized in producing packaging composite materials wherein PET and PPT are obvious species of polyester film utilized in the art to provide mechanical strength to a composite film.

7. Claims 39-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohtsuki et al in view of Breitler et al. The teachings of Ohtsuki et al are discussed above. Though Ohtsuki teach that the metal foil may be an aluminum foil, Ohtsuki et al does not specifically teach that the aluminum foil has the properties as instantly claimed. However, one having ordinary skill in the art would have been motivated to utilize any conventional aluminum foil utilized in the art wherein Breitler et al teach the use of an aluminum foil layer having the instantly claimed properties in a composite barrier packaging film and hence, one skilled in the art would have been motivated to utilize the preferred aluminum foil taught by Breitler et al in the composite barrier film taught by Ohtsuki et al.

8. Claims 48 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ohtsuki et al in view of Abrams. The teachings of Ohtsuki et al are discussed above. Though Ohtsuki et al teach that the aluminum foil layer may comprise a print layer and a polyester or polyamide overcoat or backing film, Ohtsuki et al does not teach that the print layer is provided on the polyester backing film and then an overcoat layer is provided on the print layer. However, it would have been obvious to one having ordinary skill in the art at the time of the invention to utilize any combination of print and polyester layers wherein Abrams teaches that a sterilizable packaging composite can comprise a print layer to provide desired product information for a particular packaging end use and that a protective overcoat or lacquer layer can be provided over the print layer to protect the print layer during sterilization. Therefore, one having ordinary skill in the art at the time of the invention would have been motivated to include a print layer on either side of the polyester film taught by Ohtsuki et al to provide desired product information or decorative properties, wherein the print layer is further provided with a protective overcoat layer to protect the print layer during sterilization as taught by Abrams.

Response to Arguments

9. It is first noted that the Applicant's arguments are only directed to the rejection over Migliorini and not directed to the other rejections as stated below. The Applicant argues that the amended claims now overcome the Migliorini rejection because they recite that the second functional layer (c) is limited to a coextruded film of polyamide/polypropylene extrudate only given the "consisting of" language with respect to the second functional layer. However, the Examiner notes that the claim as a whole does not exclude additional layers nor does it exclude a layer in between the metal foil and the polyamide/polypropylene film particularly given that the

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claim recites "sterilizable composite film containing a barrier layer...comprising a metal foil" and only requires that the metal foil be in direct contact to the first plastic film not the second functional layer. Hence, the Examiner maintains her position with regards to the rejections over Migliorini.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Monique R Jackson whose telephone number is 703-308-0428. The examiner can normally be reached on Mondays-Thursdays, 8:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul J Thibodeau can be reached on 703-308-2367. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9310.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



Monique R. Jackson
Primary Examiner
Technology Center 1700
December 13, 2003